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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BURNHAM, SARAH C

ART UNIT	PAPER NUMBER
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3636

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,650

Applicant(s)

ELLIOT, ANDREW JAMES

Examiner

Sarah C. Burnham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information referred to in the information disclosure statements filed on July 22, 2003 has been considered as to the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following words/phrases lack sufficient antecedent basis:

- the length (claim 3, lines 2-3)
- the form (claim 4, line 1)

Claim 5 is rejected as being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-7, 9-10 and 13 are rejected as best understood with the above cited indefiniteness under 35 U.S.C. 102(b) as being anticipated by Falzon (6,254,186). Falzon discloses in Figure 11 an adjustable lumbar support for use in the back rest of a seat, wherein the lumbar support includes a flexible band (103) which in use extends longitudinally across the back rest (2) so that opposite ends (104)(105) of the band (103) are adjacent respective opposite sides (6) (see Figure 1) of the back rest (2) and further includes adjusting means (140) operable to vary the extent to which the flexible band (103) is able to curve rearward relative to the seat back rest (2); wherein the flexible band (103) includes a plurality of elongate members (114)(153) which are spaced along, and extend transversely with respect to the longitudinal extent of the band (103) and a respective resiliently compressible bridging element (118) joining together successive elongate members (114)(153); and wherein each elongate member (114)(153) is sufficiently flexible at hinge (154) whereby at least some of the elongate members (114)(153) are adapted to bend resiliently at opposite end portions (153) thereof, and thereby to bend rearward to conform substantially to the shape of and provide resilient support for the lumbar region of an occupant of the seat, as the adjusting means (140) is operated to reduce the extent to which the flexible band curves rearward.

With respect to claim 2-4, each bridging element (118) comprises a resilient spring element in that the pleated nature of the bridging element in conjunction with the tension in core element (144), provide a spring like resistance to contraction and expansion of the longitudinal length of the band and therefore the rearward curvature o

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the band (see column 9, lines 55-67). Figures 12 and 13 best reveal how the spring element (188) has oppositely acting leaf springs (unlabeled) depicted as single side of the pleat structure.

With respect to claim 6, the "band 103 of FIGS. 10 and 11 includes section 113 and may be formed integral with that section" (column 8, lines 53-57).

With respect to claim 7, the elongate members (114)(153) are adapted to bend rearward in that each end (153) of the elongate member (114)(153) "is able to swing rearwards through a limited distance relative to the main body of the associated element 114 and thereby reduces the effort necessary to tilt the relevant end of the element 114 forwards during adjustment of the lumbar support" (column 10, lines 24-28).

With respect to claim 8, the front face (unlabeled) of the elongate members (114)(153) is substantially planar as best seen in Figure 16.

With respect to claims 10-11, each elongate member (114)(153) comprises a thin plate with strengthening ribs. See the backside of the elongate member (114) disclosed in Figure 18. Strengthening ribs are unlabeled, yet, located around the periphery of the major part of the member.

With respect to claim 13, the adjusting means (140) comprises a Bowden cable system (141) and an actuator device (unlabeled) in the form of a knob shown in Figure 11; and wherein the cable system (141) includes a sleeve (142) which extends between the actuator device and one end (104) of the flexible band and a cable (143) which extends from the actuator device through the sleeve (142) and from one end of the flexible band (104) along the band (103) to the other end (105) thereof and the actuator

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device is operable to move the cable longitudinally within the sleeve for varying the extend of rearward curvature of the flexible band (103) (see column 9, lines 12-23).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Falzon (6,254,186). As disclosed above, Falzon reveals all claimed elements with the exception of a band that is 3 to 6 mm in thickness and a plate that is .7 to 1.2 mm in thickness.

It would have been an obvious matter of design choice to choose the thin dimensions specified in the claims. Such dimensions prevent the seat occupant for noticing the presence of the lumbar device. Falzon does not disclose specific dimensions but his device is thin as well. The specific dimensions as claimed present a mere change in size and do not seem to solve any particular function or perform superiorly to the device disclosed by Falzon.

Allowable Subject Matter

8. Claim 5 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


The following patents are cited to further show the state of the art with respect to lumbar supports in general:

- Falzon (5, 769,490)
- Sloan, Jr. (6,695,402)
- Dal Monte (EP 0518830 A1)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah C. Burnham whose telephone number is 703-305-7315. The examiner can normally be reached on M-Th 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 703-308-0827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Peter M. Cuomo
Supervisory Patent Examiner
Technology Center 3600

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July 29, 2004